

Zoning and Affordability: A Reply to Storper and Rodríguez-Pose

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On May 9, our colleague Michael Storper, along with Andres Rodríguez-Pose of the London School of Economics, published an academic article about housing policy in the journal *Urban Studies*. The article is titled “Housing, urban growth and inequalities: The limits to deregulation and upzoning in reducing economic and spatial inequality.”¹ It argues, among other things, that mainstream academic wisdom about housing is incorrect, and that building new market-rate housing will not help affordability in expensive regions, and may well harm it.

Academic essays tend to come and go with little impact on the world at large. This article, however, has already entered California’s housing debate with some force. The well-known urbanist Richard Florida devoted a prominent and effusive essay to it in on *Citylab*, and Storper discussed the article extensively in the *Planning Report*. Storper has also used the article as a basis for his opposition to SB50, the proposed legislation that would upzone large swathes of California to allow more development. Elected officials from affluent cities and prominent anti-housing activists have brandished the article as proof of their position.² Their message is that two eminent academics have debunked the idea that more housing can ameliorate the housing crisis.

But the article shows nothing of the sort. Storper and Rodriguez-Pose (henceforth S-R) are indeed esteemed geographers with international reputations. But this article badly misses the mark. It ignores much of the research on the topic, misstates or misunderstands the research it does cite, presents misleading and oversimplified analyses, and advances an argument that is internally inconsistent.

In this response we highlight the errors of logic and data in the S-R article, and provide some context about California’s housing crisis. If there is a strong academic case against legislation like SB-50, the S-R article does not provide it. California has a housing shortage, which imposes considerable pain on its many renters and burdens would-be homebuyers. The state desperately needs more housing, and especially more housing where housing prices are currently highest.

¹ Throughout we refer to the pdf of this paper that is posted here: <http://econ.geo.uu.nl/peeg/peeg1914.pdf>

² See for example Richard Florida, “Cities Can’t Build their Way out of Inequality.” *Citylab*. <https://www.citylab.com/equity/2019/05/housing-supply-home-prices-economic-inequality-cities/588997/>. Also see, variously, <https://twitter.com/JohnMirisch/status/1126559795463372800> <https://48hills.org/2019/05/new-study-challenges-wieners-approach-to-housing/>

What is the S-R Argument?

S-R are critiquing what they call “housing as opportunity” school of thought, which in their view is dominates the academic discourse about housing policy, and is focused relentlessly on deregulation. Beyond that broad thesis, however, S-R’s precise points can be hard to discern. Their article is long, densely-written, and frequently switches from topic to topic. At different points S-R suggest that they are scrutinizing the idea that building more housing will grow the national economy, that it will make housing less expensive, that it will reduce wage and income inequality between people, that it will reduce inequality between places, and that it will help declining regions.

We will set aside many of these questions, since they have little bearing on California’s housing debate, which is primarily about whether new development will help affordability. For the record, we agree with S-R that building market rate housing will not by itself eradicate inequality, or revive declining regions. We also agree that building market rate housing will not, by itself, get everyone in expensive regions properly sheltered. But as far we can tell *everyone* agrees with that. Many people (us included) think that more housing in expensive places is *necessary* for fighting inequality and increasing affordability, but no one we are aware of thinks it is *sufficient*, i.e., that *all* we need to do is build more housing.

How do we know this? Huge portions of the “mainstream housing literature”, which S-R critiques for a single-minded focus on zoning, are devoted to the role of subsidy programs in making housing more affordable.³ The Moving to Opportunity demonstration program is arguably the most studied social program of the last 30 years, creating a vast literature on the role of housing vouchers in making housing more affordable and improving people’s lives. Last year the three of us wrote a letter, signed ultimately by 22 academics, in support of a zoning deregulation bill for California. That letter *expressly said* that more market rate housing was necessary but insufficient, and that the state also needed more housing subsidies and tenant protections. Many planners, sociologists and economists who favor more building simultaneously study, and call for, more money for housing subsidy programs. To give just one example, Edward Glaeser and Joseph Gyourko devote entire sections of their book on housing policy to expanding the voucher system (Glaeser and Gyourko 2008).

We emphasize this focus on other aspects of housing policy point not only to clarify our own position, but to highlight two problems that recur throughout S-R’s article: a tendency to confuse necessary with sufficient, and a tendency to reduce other people’s positions to straw men.

³ Sociologist Matthew Desmond, in his acclaimed book *Evicted*, goes so far as to suggest that housing studies are *overly* oriented around low-income subsidies. As he says: “According to Google Scholar, there are more than 4,800 scholarly articles and books in which the phrase ‘Moving to Opportunity’ appears in the text. This neighborhood relocation initiative designed to move families out of disadvantaged neighborhoods was a bold and important program—which served roughly 4,600 households. In other words, by now every family who benefited from Moving to Opportunity could have their own study in which their program was mentioned.” (Desmond, p 404).

Our focus in this response will be on S-R's contentions about zoning and housing affordability. To advance their position that upzoning will not help affordability, S&R make two related arguments. The first is meant to cast doubt on the idea that regulations substantially influence housing prices in expensive places. The second, somewhat paradoxically, concedes that allowing more market-rate development would reduce prices, but do so only for the rich.

We consider each of these arguments in turn.

Part 1: Zoning's Limited Impact on Prices?

The argument that regulation drives up housing prices goes something like this. When a region's economy grows, more people want to live there, to access its jobs and amenities and other opportunities. If this new demand for housing is met with new supply, then the region's population and housing stock will grow, and house prices will only appreciate modestly. Because house prices won't rise too much, people of many income levels will be able to move to the area, and people who grow up there will be able to stay, and the socioeconomic composition of its population won't change too much.

If the demand is *not* met with new supply, however, then the population will grow more slowly. What will grow instead is the price of housing, because now every available unit has more people bidding for it. Rents and values will rise, and the relatively few people able to buy in will be rich. Over time, the socioeconomic composition of the region will change, and become higher income. A supply-constrained region essentially makes a trade: it accepts less people in exchange for higher property values.

The big question is *why* new demand would not be met with new supply. In a well-functioning market, profit-hungry developers⁴ build housing when people want it, and build it most in locations where people want it most (i.e., where prices are highest). In the country's expensive regions, however, that plainly does not occur. In part this is because development is just harder in some places than others, for reasons like topography. But another big reason is regulation. Incumbent residents often don't want their neighborhoods to change. They resist proposals to allow more housing, and since they vote (while potential in-migrants do not) they are able to secure regulations that restrict new development. Often (not always) this opposition is rational and sincere—people think their neighborhood is special, and worry about changes to it. But when every neighborhood acts to preserve itself, soon the city is mired in regulation, and rents

⁴ S-R seem to misunderstand the role of developers in this research. At one point they state that “the mainstream academic literature may also have become – wittingly or unwittingly – a stalking horse for developers whose primary interest is not in reducing socio-spatial inequalities or spreading prosperity.” Set aside for the moment the false reduction of “the academic literature” to zoning deregulation alone. On its own terms, this statement betrays a profound misunderstanding of economic logic. When market actors deliver social benefits, it is not because those actors are socially conscious, but because the market has sufficiently aligned private and social goals. The idea that upzoning can reduce prices does not depend on developers being altruists. It depends *only* on them wanting profits.

and prices rise. Were regulations relaxed, these places would have more housing, and prices increases would first slow and eventually fall.

That, essentially, is the conventional wisdom that S-R find implausible.

An acknowledged weakness in this field of research is that regulatory stringency is hard to measure, and S-R focus on this weakness. Planners and economists attempt to track regulation in numerous ways. They survey local zoning codes, ask local planners how long it takes buildings to be approved, measure how often development proposals are litigated, measure the difference between the average and marginal value of land, or measure how often developers need to ask for variances or other special approvals, to name a few.⁵ All of these approaches, when used in controlled statistical models, point to regulation playing a role in suppressing housing production and increasing housing prices (Albouy and Ehrlich, 2011; Glaeser, Gyourko, and Saks 2005; Glaeser and Ward 2008; Hilber and Vermeulen 2016; Kahn et al 2011; Zabel and Dalton, 2011; Kok et al 2014; Jackson 2016).

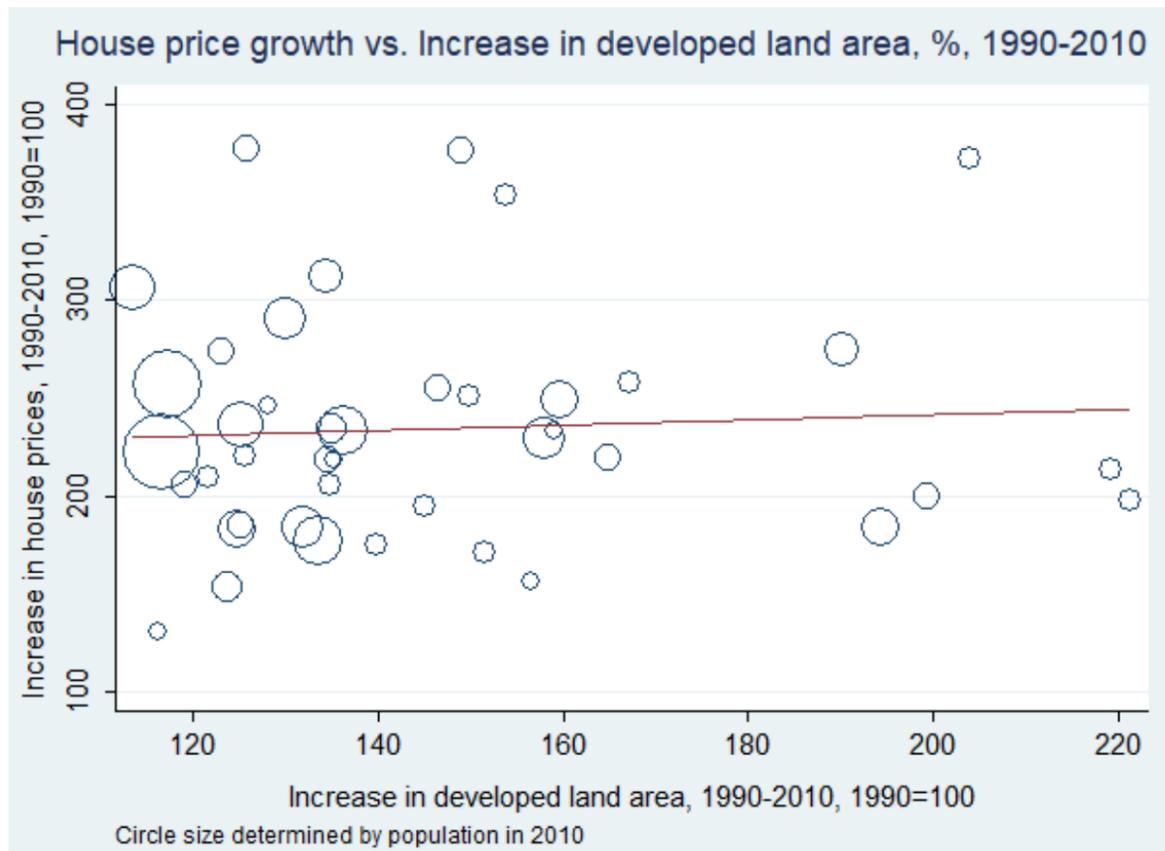
None of these measures, again, are perfect, and it is fair to criticize them. Yet S-R ignore most of them, and criticize others in ways that are inaccurate. For instance, they say that researchers who use the Wharton Regulatory Index don't weight it when aggregating to the metropolitan scale, but one need only look at the most influential paper using that index, (Saiz 2010), to see that he weights the index in precisely the way S-R says researchers do not.

Having critiqued existing measures of regulation, S-R then present their own metric of regulatory stringency: the percent change in developed land area in a region. In their Figure 6 (below) S-R plot the change in developed land area against the change in house prices for 42 metropolitan areas, and find no relationship between them, which leads them to conclude that house prices have little relationship to regulation—or, as they put it, to show that the predictions of the “housing as opportunity” school are not evident.⁶

⁵See Gyourko, Saiz, and Summers (2008); Kok et al (2014); Levine 1999; Einstein et al 2017; <https://turnercenter.berkeley.edu/blog/land-use-in-california>;

⁶ We do not know why they only used 42 metro areas. The US has hundreds of metro areas; 52 metros have over a million people, and another 19 have between 800,000 and a million.

Figure 6. House price growth vs. increase in developed land area, %, 1990-2010.



Source: Reproduced from Storper and Rodríguez-Pose

There are two problems here. First, when S-R criticize other scholars for how they measure stringency, they do so by arguing that their methods are insufficiently complex, and unable to truly identify the role of regulation (e.g., page 25 of S-R). But S-R do not go on to present, as one might expect, an actual empirical model of their own, which captures more variables and accounts for more factors. Instead they offer the scatterplot above. Second, what S-R have decided to put in the scatterplot is simply bizarre. While existing measures of regulatory stringency are certainly imperfect, S-R's metric of change in developed land area is unquestionably worse than all of them.

S-R justify their developed land metric by saying that if a place can add a lot of newly-developed land, it is probably expanding on its urban fringe, and is thus relatively unregulated. This reasoning is inadequate. A lot of expansion on the urban fringe suggests that the *urban fringe* is relatively unregulated, but that tells you nothing about the regulations in the urban area overall. What if height regulations in the central parts of a region are fueling development on the fringe?⁷ In that case, newly developed land area is a symptom, not a refutation, of stringent regulation.

⁷ As they are canonically theorized to do, for more see Brueckner and Sridhar, 2012.

The S-R metric cannot discern between an overall regime of light regulation and lots of development, and a regime of heavy regulation that limits development while pushing it outward.

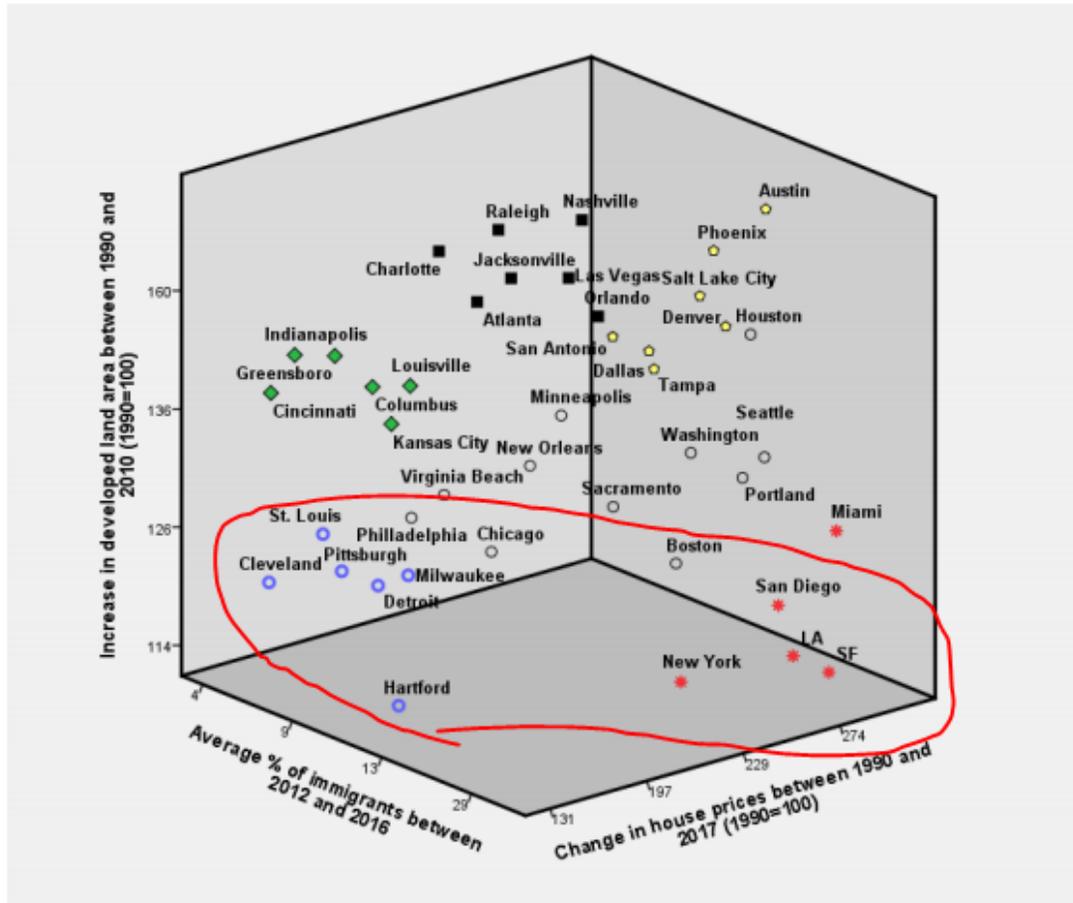
The difficulty of interpreting the S-R metric when it is large, however, pales next to the problems that arise when it is small. Suppose a region doesn't add a lot of new developed land. That *could* be a sign of strict zoning. It could also be that the place that just doesn't have a lot of land left. And it could be a sign of stagnation – a place with little demand for new housing.

Detroit didn't add much new developed land from 1990 to 2010. That's probably a sign of stagnation. San Francisco also didn't add much. How should we interpret that? San Francisco is strictly zoned, but it is also bounded by mountains and ocean—there just isn't much undeveloped land to build on. S-R metric can't differentiate between those factors. Now suppose San Francisco relaxes its zoning and covers its central area in residential towers. This would be a complete regulatory about-face, but it would not have added any developed land, so S-R's metric would miss it entirely. One of the biggest problems of restrictive zoning is that it makes *infill* difficult. But in S-R's metric, infill doesn't exist. So we probably shouldn't use this metric to examine San Francisco. Or, for that matter, Detroit. We certainly shouldn't put these two cities in the same category.

Yet that's precisely what S-R did. Look at Figure 3 from S&R's paper (below). The figure is hard to read, but we have circled the metros they show as falling into their category of adding little developed land.⁸ The group includes some of the most and least expensive places in the United States: New York, San Francisco and Boston, but also Cleveland, Milwaukee, Hartford and Detroit. We therefore have some economically dynamic places that don't have a lot of undeveloped land, and that grow slowly because they let few people in. We have combined these places with economically stagnating places that didn't grow because few people *wanted* in—indeed, in some of these places lots of people left. You can build a metric that puts Detroit, San Francisco and Boston in the same category, but you can't call that category “heavily regulated cities.” You have to call it “places that for very different reasons have not added much developed land area.” There's no reason to think there would be any relationship between this category and housing prices, so no one should be surprised that S-R don't find one.

⁸ As an aside, S-R build a fair amount of discussion around this figure, but we find it impenetrable. It simultaneously plots the change in house prices, the change in developed land area, and the level of immigration across US metro areas. It is unclear why S-R chose the *level* of immigration when they measure the *trend* in the other two variables. S-R are trying to make an argument about housing price changes and in-migration, but many of the immigrants in any given area will have lived there for a long time, so immigration levels are largely meaningless for their argument. The presence of an immigrant who arrived in 1990 tells us little about the impact of zoning stringency in 2010. It is also unclear why S-R use immigration rather than in-migration. Zoning is not border enforcement, after all. To the extent it keeps people from moving to a region, it will do by discriminating on income, not place of birth. Lastly, despite the graph's ostensible purpose, San Jose—one of the country's least affordable areas and a focus of the literature S-R critique—seems to appear nowhere on it.

Figure 3. Urban land area development, house prices and in-migration in the largest metropolitan areas in the US (1990-2017).

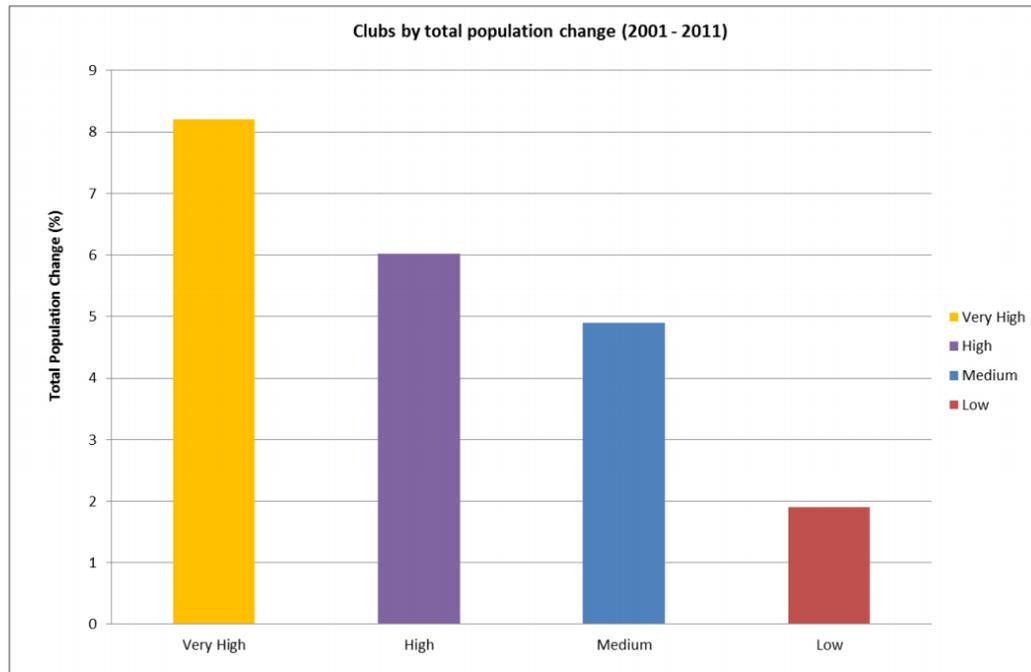


Source: Own elaboration, using data provided by Romen, Bogin, Doener and Larson (2018) and the Migration Policy Institute (2018).

Source: Reproduced from Storper and Rodríguez-Pose

S&R's next piece of evidence that zoning is not a meaningful constraint is a graph (shown below), which demonstrates that high income places are still growing in absolute terms. They accompany this graph with citation suggesting that the people moving in are disproportionately rich.

Figure 7. Population growth in European regions by income levels, 2001-2014.



Source: Reproduced from Storper and Rodríguez-Pose

It isn't clear what purpose this graph serves. S-R are making an argument about housing prices, but they have sorted cities by income.⁹ The correlation between incomes and prices is reasonably strong, but this is nevertheless a curious empirical choice, especially in a paper laced with criticisms of other scholars for being slipshod and lacking in rigor. Even setting this empirical decision aside, however, the point the graph makes is hardly revelatory. Should we be surprised that relatively few people want to move to lower income places?

As best we can tell, S-R consider this graph important because it refutes the idea that stringent zoning prevents cities from growing at all. And it does. Once again, however, S-R have demolished an argument no one actually makes. Remember, when housing scholars say that zoning drives up the price of living in some cities, they are not saying that *no one* will move to those cities. The argument instead is that the desire to live in these places will manifest more in the growth of home prices and less in population growth. These places will add wealth for existing people rather than new people.¹⁰ It follows, as a result, that the people who do move in will be richer, that they will bid up the price of housing and make it harder for poorer people to

⁹ S-R are quite cavalier about switching back and forth between the US and Europe. Cities in both places are important and informative, but for analytical consistency it's often helpful to maintain a constant sample, or at least give a reason for bouncing from one sample to another.

¹⁰ Gyourko et al, 2013

hold on, and that as a result the average income in these places will rise faster than it will in other areas.

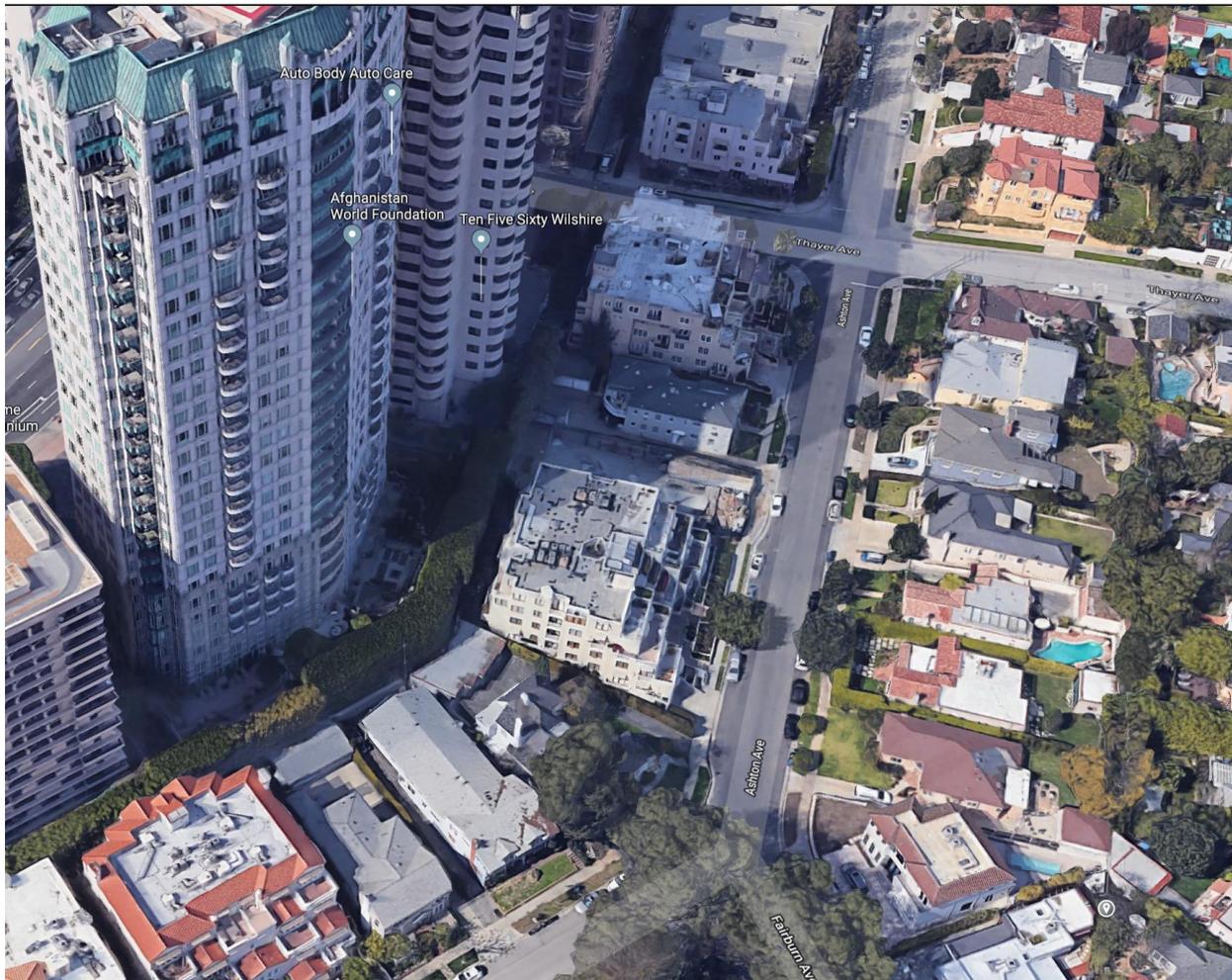
S-R turn this logic on its head. Buoyed by the demolition of their straw man, they portray the graph as showing that the problem is not too little housing, but a large influx of rich people. Rich people want expensive housing, in other words, so housing becomes expensive. The housing crisis, as they state, is “due less to over-regulation of housing markets than to the underlying wage and income inequalities, and a sharp increase in the value of central locations within metro areas, as employment and amenities concentrate in these places” page 3.

This makes little sense. Wage and income inequality *have* been growing, and expensive places have seen an influx of richer people. But why should we think that rich in-migrants cause expensive housing, rather than the other way around? One might argue that rich people like fancier, expensive things (true!), but if upscaled consumption were driving California’s high home prices, we should look around and everywhere see rich people building expensive new homes for themselves. Of course we do see some of that, in the form of custom-built residences and expensive remodels. But that’s not the norm. Much more common is the phenomenon of people paying over a million dollars for plain vanilla single family homes that once sold for a few hundred thousand. In general, rich people are not making their housing extravagant. They are paying extravagant prices for homes that used to be much cheaper. Put another way: California’s housing crisis is not the equivalent of rich people driving up the average price of cars by buying only Bentleys. It’s the equivalent of rich people driving up the average price of cars by purchasing Toyota Corollas at three times their sticker price.

Anyone arguing that the mere presence of rich people makes housing more expensive, moreover, needs to explain why this effect only seems to hold for housing. Rich people also buy refrigerators and groceries and televisions, but these are not noticeably more expensive in Los Angeles or San Francisco than in the rest of the country. One might counter that these goods are easier than housing to produce. But that’s not a counterargument: it is our *point*. It is the difficulty of producing housing, not the incomes of the people buying it, that makes housing so expensive. Once we agree about that point, we can ask *why* housing is so hard to produce. And again, there are multiple answers, but regulation is most certainly one of them.

Plenty of research backs this point up (Glaeser and Ward 2008; Hilber and Vermeulen 2018; Kahn et al 2011; Kok et al 2014; Pendall 2000; Saiz 2008), but let’s just make it intuitive. Consider the picture below, of Wilshire Boulevard in West Los Angeles. Wilshire is lined by a series of high-rise residential towers, which are almost always fully occupied. Less than a block away, however, the neighborhood is nothing but detached single family homes. One can love or hate the towers, but clearly the market in this area would support *far more housing* than it actually has. If a 20 or 30 story building can be profitable two parcels away, then ample demand exists for something more than a single family home. What prevents that extra housing from being built, and that demand from being met, is zoning. Wilshire Boulevard is zoned for multifamily housing, and its surroundings are not. Wilshire is a particularly vivid example of a

phenomenon that plays out regularly but in less obvious ways across California’s expensive regions. These places have high demand, but also rules that constrain supply.¹¹



Source: Google Maps

Part II: Upzoning Only Helps the Rich?

Having argued that weaker regulation will not reduce prices, S-R now backtrack slightly, and say that while upzoning *could* reduce prices, it would do so only for the most affluent housing consumers. “Blanket upzoning ...” they write, “will principally unleash market forces that serve high income earners, [and is] ... likely to reinforce the effects of income inequality rather than tempering them ... There is virtually no evidence that substantially lower costs would trickle down to the lower two-thirds of households” (p. 30).

¹¹ It may be tempting to disparage the towers as “luxury housing.” And the condos in those towers do often cost \$1 million. But remember that the single family homes behind them often cost \$3 million.

This contention—that new housing won’t help lower-income people—is common, and on some levels understandable. New development tends to be expensive, and the idea that it can increase affordability is counterintuitive. But it’s important to remember that new development has *always* been relatively expensive. Most people in most places cannot afford a brand new housing unit. The hallmark of a housing crisis is not that new housing is expensive, but that *older* housing, which used to be cheap, rapidly increases in price. Los Angeles does not have a housing crisis because new apartments go for over \$3,000 a month. It has a housing crisis because apartments built in the 1980s, which used to rent for \$1,000, now rent for over \$2,000.

So while it is plainly true that a low-income person will not move into a new high-end apartment, it may be true that a rich person who moves into a new high-end apartment will not, as a consequence, bid up the price of an existing lower-rent apartment. The value of new housing is not that it houses the poor, but that it immediately relieves pressure on the older units where the poor tend to live, and then over time becomes old housing itself, and thus less expensive.

The relevant question, then, is how new housing interacts with older housing: does it relieve pressure on the existing stock? S-R assert that it does not. They suggest that because housing markets are “segmented,” what occurs at the top end of the market has no impact on the bottom end.

To be clear, housing markets *are* segmented. Mansions are built for rich people, and so are luxury condos. But it is a strong statement to suggest, as S-R do, that the segments are virtually impenetrable to each other. And S-R present almost no data, or even logic, to back this statement up. This short section of their article is composed mostly of sweeping assertions. They cite two sources. First is a well-done academic paper that simulates the effect of adding new housing in Greater London (Fingleton et al 2018)¹². S-R suggest that this simulation shows that new housing doesn’t lower prices, but the findings are in fact a bit more nuanced than that. Two of the paper’s simulations—of a 15 percent increase in London’s housing stock and a large addition of housing in the London Greenbelt—do in fact make London more affordable: a conservative estimate of the latter is that prices would be 55,000 pounds lower than otherwise. Given London’s expensive market, that is not huge. But it is a decline. And this paper is, again, a simulation rather than a test of empirical data.¹³

For their second source, S-R briefly mention a *Washington Post* article, where a reporter analyzed Zillow’s 3-Tier housing data and concluded that new construction in some cities was reducing rents only for the most expensive housing. Economist Joe Cortright has thoroughly

¹² S-R identify this paper as Szumilo (2017).

¹³ Some further detail is in order. The paper addresses an important question: is the demand for housing so high in some cities that new units only trigger more in-migration? The simulations suggest that in London, building more housing would lower prices, but that so much pent-up demand exists to live in London that prices would quickly be bid back up, albeit not all the way to what they would have been in development’s absence. This finding is an important caution that some new units may not alleviate pressure on existing units. But it does not say that new development is entirely futile. As the paper says in describing its simulation of a 15 percent supply increase, new supply “does make housing more affordable, but not by a large amount, and it fails to eliminate the affordability gap between London and the rest of England.”

debunked this article, so we will only summarize its problems here.¹⁴ The largest trouble is that Zillow's 3-tier data includes no apartments, meaning the reporter analyzed rents without any actual data on the units most likely to be rented. The reporter compounded this error by misinterpreting the limited data he had: as Cortright shows, prices appear to be falling for all tiers of housing in places that build. Reporters work on tight deadlines and often have little quantitative training. They are bound to make mistakes when they do data analytics. Academics like S-R, however, have few excuses for not knowing the pedigree of the data they cite.

Is there evidence to contradict S-R about development and affordability? There is, but you won't find it in their article. The theoretical and empirical literature on filtering (e.g. Bond and Coulson, 1989; Arnott and Braid, 1997; Rosenthal, 2014; Weicher et al 2016)—the process by which today's expensive becomes tomorrow's affordable housing—is never mentioned. But filtering is real phenomenon. Weicher et al (2016) identified 6.6 million very low income households in 2013 that obtained unsubsidized but still-affordable housing on the rental market. Forty-five percent of the housing units these households found had filtered: in 1985, they had either been owner-occupied or had been in a higher rent category.

S-R also do not cite literature suggesting that new development alleviates pressure on existing stock. The California Legislative Analyst's Office (Uhler, 2016) using data from Karen Chapple and Miriam Zuk at UC Berkeley's Urban Displacement Project, showed that neighborhoods that build new housing have less displacement than neighborhoods that do not build. S-R do not cite this report. Nor do they cite the work of Evan Mast and his coauthors (2019), which suggests that new luxury housing in gentrifying areas does not result in displacement.

Mast by himself (Mast, 2019) has also done research that carefully tracks the inhabitants of new high-end apartment units. He finds that while housing markets are segmented, the segments are usually quite permeable: many people who move into high-end units used to live in existing lower-priced units in the same region. As his abstract states, "Building 100 new luxury units leads 65 and 34 people to move out of below-median and bottom-quintile income neighborhoods, respectively, reducing demand and loosening the housing market in such areas."

Conceptually, Mast's finding is sensible. Think about what it means to argue that housing markets are so segmented that the activity of affluent consumers has *no impact* on lower-income consumers. At its extreme, this contention implies that gentrification is all but impossible. Gentrification, after all, requires that new housing first become old enough that its price falls and lower-income people move into it, and then requires affluent people to return and bid its price back up. In both cases, the actions of the affluent are influencing the price for the non-affluent. Both of those conditions violate the assumption of high segmentation. Since gentrification does in fact exist, the housing market segments must be fairly permeable.

Finally, suppose you believe none of the evidence we offer, and all the evidence S-R offer. You would then believe that upzoning only helps higher-income consumers. But that's different from

¹⁴ See http://cityobservatory.org/wapo_rents_analysis/.

saying it *harms* anyone else. And S-R offer no evidence that it will harm anyone else.¹⁵ So why object? One could only reasonably object if people were saying that cities should do *nothing* but increase their stocks of market rate housing. And now we are visiting our straw man again. Because no one says that.

Aside: What about the Freemark Study?

In several places in their article, S-R refer to a study by Yonah Freemark, published in *Urban Affairs Review*, which examined a spot upzoning program in Chicago. Freemark found that five years into the program, the upzoned parcels had higher prices, but were not more likely than other parcels to have been redeveloped into housing. S-R use this study to buttress the claim that deregulation doesn't make housing less expensive, and Storper has cited it in arguing against the "blanket upzoning of SB 50."¹⁶ The Freemark study, he has said, shows that deregulation leads to higher prices but no new housing. S-R make the same point in their article. "In Chicago, for example," they write, "it has been found that upzoning has had unintended consequences, such as raising housing prices without necessarily triggering additional construction of newly permitted dwellings (Freemark, 2019)."

Freemark's study is impressive. But there is little reason to think the program Freemark studied has much bearing on what would happen if a law like SB50, or any other comprehensive upzoning program, were deployed in California (or elsewhere). S-R talk about "blanket upzoning" but the program Freemark studied was a classic example of spot upzoning—allowing particular *parcels* near transit stops to build more, not whole neighborhoods. (Indeed, it was the fact that only some parcels were "treated" with upzoning, while other nearby parcels were not, that gave Freemark his approach for identifying the upzoning's impact.) So right away the comparison with a law like SB 50 is at best imperfect.

The imperfection compounds because Chicago is simply not a good analog to coastal California. Redeveloping an upzoned parcel is expensive, and (to simplify a bit) the decision to do so will involve weighing the costs of demolition and development against the returns of selling the redeveloped property. Construction and demolition costs do vary across the country, but the really big variance is in the market prices: how much can you sell the finished units for? In Chicago these prices are relatively low. The city has struggled for decades with population loss, and the pressure on its housing stock is small. According to Zillow, in 2019 the median price of

¹⁵ One could argue that new development will displace existing low-income tenants, and replace existing lower-cost housing with higher-cost "luxury" units, and therefore cause some harm. But remember two points. First, most of the protection offered by zoning, in most of California, is for detached single family homes. Second, the vast majority of detached single family (especially in high-priced areas) are owner-occupied. Detached single family homes on valuable urban land are the ultimate luxury housing type, and real "blanket upzoning" would open them to development. Upzoning desirable single-family areas would result in the existing expensive units being replaced by *less* expensive units—the new multifamily would make these neighborhoods *more* affordable. The painful conflicts we see in cities right now, where new multifamily development sometimes requires demolishing older and more affordable units, arise in part because current zoning restricts multifamily housing to such a small portion of our land area.

¹⁶ See <https://www.planningreport.com/2019/03/15/blanket-upzoning-blunt-instrument-wont-solve-affordable-housing-crisis>

an owner-occupied home in Chicago is \$230,400, while the median rent is \$1,700. In San Diego these figures are \$632,000 and \$2,675, respectively. In Los Angeles they are \$687,700 and \$3,500, respectively. In San Jose they are \$1 million and \$3,400. In San Francisco they are \$1.3 million and \$4,500. For a typical landowner, the returns to redevelopment are far larger in California than in Illinois.

A final point is that many of the parcels Freemark studied were condos. Redeveloping a condo parcel is extraordinarily difficult, because condo buildings have multiple owners, which introduces assembly problems. A person who buys a parcel with an apartment building on it can, for better or worse, simply require the tenants to leave if he wants to redevelop. A person who buys a condo parcel and wants to redevelop must negotiate to buy out all the separate owners. That can be time-consuming and expensive, and in a relatively weak market like Chicago, this added layer of negotiation could easily make redevelopment infeasible. But these conditions would not hold with a law like SB50, which would upzone many areas with single family homes.¹⁷

Conclusion: Clarity About Housing

Ultimately, S-R posit that zoning does little to restrict housing supply and drive up prices, and that new housing will only help the affluent people. These arguments are not new; they have been the bread-and butter of anti-housing activists for years. S-R do not deploy new evidence to support these arguments, and they ignore evidence that contradicts them. The main contribution of S-R's article, it seems, is to dress the anti-housing argument up in fancier academic clothes, by swaddling it in passive language, economic jargon and vague prose. Early in their article, for example, they write:

"Housing markets are not like standard markets, so that aggregate increases in supply do not translate in any straightforward way to decreases in price, because the internal plumbing of housing markets – succession, migration, and occupation patterns – are full of frictions, sunk costs, barriers and externalities that make the effects of aggregate supply increases highly uneven, and in many cases involve unintended or contradictory effects."

That, without a doubt, sounds impressive. But what actually does it mean? Do housing markets have frictions, sunk costs, barriers and externalities? Sure. But so do most markets, and in those markets it is still the case that more supply leads to lower prices. S-R make their assertion, moreover, as though it is an insight they alone have—that somehow the scores of housing scholars who have preceded them have never noticed, or willfully ignored, the barriers, frictions and externalities in housing markets. But that's plainly untrue. The entire literature S-R criticize is *motivated* by barriers, frictions and externalities. Development regulation, after all, is a *barrier* to entering the housing market, which exacerbates that market's frictions and externalities.

¹⁷ S-R also ascribe to Freemark all sorts of findings and insights he simply doesn't make. For example, on page 29 they write "Even for renters, top income households show a decline in income going to housing costs, while the bottom half of households that are renters show an increasing share going to housing costs, in a result consistent with Freemark's (2019) detailed results for Chicago." But Freemark never discusses the incomes or rents of different groups, and he certainly does not provide detailed results about them. Indeed, the word "rents" only appears twice in his entire article. When we asked Storper about this, he did not respond.

Given that S-R's article is not an empirical or even a theoretical exercise, but rather a lengthy (albeit badly incomplete) review of the research literature, what's the point of all the heavy-handed talk about equilibria, frictions, wage curves, and so on? It's hard not to conclude that this language serves more to obscure than enlighten. Jargon has its place, but dense language is often a good friend to a bad argument, serving as both armor and disguise for logic that would not withstand scrutiny if it was stated plainly. When the stakes are low, that's a regrettable but probably harmless way to get an academic article published. California has a serious problem, however, and scholars who weigh in on its housing crisis owe their audience clarity and due diligence if nothing else.

Clarity and due diligence are badly missing in S-R's article. S-R criticize the empirics of others but offer little empirical analysis of their own, and what they do offer is badly flawed. They take a negative view on existing proposals for housing affordability, but notably fail to provide a positive vision of their own. The closest S-R come to a policy proposal is in one sentence toward the end, where they make a vague illusion to public housing. But even this seems contradictory—without zoning reform, where would California *put* more public housing? In this way the paper just sings a slightly different verse of the typical NIMBY song: Yes, housing is important. But not here, not now, and not like this. And no, we have no ideas for doing it differently.

S-R frame their article as a warning against the dramatic action of upzoning, since it may have unwanted consequences. This reasoning rings hollow. It's true that the statewide housing legislation under consideration in California is imperfect. And it's true that upzoning is strong action, and that strong actions carry risk. But it is a basic mistake of policy analysis to compare an existing real proposal only to some idealized "perfect" proposal, and to not also weigh the risks of that proposal against the known harms of the status quo. Surgery is risky; no one should do it if they are perfectly healthy. But most people don't consider surgery when nothing is wrong. They consider it when they are very sick. The consequences of *inaction* also matter.

For anyone paying attention to housing in California, it is simply weird to read S-R warn against unwanted consequences. The unwanted consequences are already here. It is entirely appropriate to subject proposals for new housing to scrutiny and debate, but it is irresponsible to pretend that the only costs lie in action. And it is incumbent upon those who want to argue against new development to provide clear and sound reasoning, and valid evidence, for their position. S-R have failed on all counts in this regard.

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